

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-2 (Canceled).

3(Currently Amended). A peptide or polypeptide consisting of from 7 to 15 amino acids, said peptide or polypeptide that mimics mimicking a carbohydrate ligand of an adhesion molecule in a physiologically acceptable carrier, wherein said ligand is a Lewis SA-Le^a or SA-LeX antigen.

Claims 4-5 (Canceled).

6(Currently Amended). The peptide or polypeptide according to claim ~~5~~ 3 which is selected from the group consisting of: ASAVNLYIPTQE SEQ ID NO:84, VYLAPGRISRDI SEQ ID NO:85, VYLAPGRFSRDY SEQ ID NO:86, CTSHWGVLSQRR SEQ ID NO:87, RVLSPESYLGPS SEQ ID NO:88, ~~RVLSPESYLGPA SEQ ID NO:89~~, VGNGVLMGRRG SEQ ID NO:90, RVLSPESYLGPA SEQ ID NO:92, GNCRYIGLRQFG SEQ ID NO:93, DIRVEPGGGYTH SEQ ID NO:94, APIHTYTGRARG SEQ ID NO:96, and RHTCVRSCGHDR SEQ ID NO:97.

Claim 7(Canceled).

8(Currently Amended). The peptide or polypeptide according to claim 4 3, wherein said Lewis antigen is SA-Le^a and said peptide or polypeptide is selected from the group consisting of VGIWSVVSEGSR SEQ ID NO:102, RCSVGVPTMES SEQ ID NO:103, QDGVWEHVLEGG, SEQ ID NO:104, DLWDWVVGKPAG SEQ ID NO:1, VELSGRGGLCTW SEQ ID NO:105, VIGAASHDEDVD SEQ ID NO:106, TIEPVLAEMFMG SEQ ID NO:107, DKETFELGLFDR SEQ ID NO:108, FSGVRGVYESRT SEQ ID NO:109, PDDAPMHSTRVE SEQ ID NO:110, STGLMVDLFEPG SEQ ID NO:91, AKTFGLEHGCEA SEQ ID NO:95, GGTVEVWSIKGG SEQ ID NO:115, DHFSQAGSSNHH SEQ ID NO:116, DDPVTPVIDFGK SEQ ID NO:117, and RDGLIDFVVAGT SEQ ID NO:118.

9(Previously Presented). The peptide or polypeptide according to claim 3 which is modified to enhance stability or enhance adhesion molecule binding.

Claims 10-44 (Canceled).

45(New). The peptide or polypeptide according to claim 3, which is a multivalent peptide or polypeptide.

46(New). A peptide or polypeptide of a carbohydrate Lewis antigen ligand of the adhesion molecule E-selectin, wherein said Lewis antigen ligand is SA-Le^a or SA-LeX and wherein said peptide or polypeptide is selected from the group consisting of: ASAVNLYIPTQE SEQ ID NO:84, VYLAPGRISRDI SEQ ID NO:85, VYLAPGRFSRDI SEQ ID NO:86, CTSHWGVLSQRR SEQ ID NO:87, RVLSPESYLGPS SEQ ID NO:88, RVLSPESYLGPA SEQ ID NO:89, VGNGVLMGRRG SEQ ID NO:90, RVLSPESYLGPA SEQ ID NO:92, GNCRYIGLRQFG SEQ ID NO:93, DIRVEPGGGYTH SEQ ID NO:94, APIHTYTGRARG SEQ ID NO:96, and RHTCVRSCGHDR SEQ ID NO:97.

47(New). The peptide or polypeptide according to claim 46 which is modified to enhance stability or enhance adhesion molecule binding.

48(New). The peptide or polypeptide according to claim 46, which is a multivalent peptide or polypeptide.

49(New). A peptide or polypeptide that mimics a carbohydrate ligand of an adhesion molecule in a physiologically acceptable carrier, wherein said ligand is the Lewis antigen LeY and said peptide or polypeptide is selected from the group consisting of TKRPDLIVDPIP SEQ ID NO:98, DEVRPDLISTEE SEQ ID NO:99, NLRPKYIXLDAD SEQ ID NO:100, and TLIAFADLVDVI SEQ ID NO:101.

50(New). The peptide or polypeptide according to claim 49, which is modified to enhance stability or enhance adhesion molecule binding.

51(New). The peptide or polypeptide according to claim 49, which is a multivalent peptide or polypeptide.

52(New). A peptide or polypeptide that mimics a carbohydrate ligand of an adhesion molecule in a physiologically acceptable carrier, wherein said ligand is the Lewis antigen SA-Le^a and said peptide or polypeptide is selected from the group consisting of VGIWSVVSEGSR SEQ ID NO:102, RCSVGVPTMES SEQ ID NO:103, QDGVWEHVLEGG, SEQ ID NO:104, DLWDWVVGKPAG SEQ ID NO:1, VELSGRGGLCTW SEQ ID NO:105, VIGAASHDEDVD SEQ ID NO:106, TIEPVLAEMFMG SEQ ID NO:107, DKETFELGLFDR SEQ ID NO:108, FSGVRGVYESRT SEQ ID NO:109, PDDAPMHSTRVE SEQ ID NO:110, STGLMVDFLEPG SEQ ID NO:91, AKTFGLEHGCEA SEQ ID NO:95, GGTVEVWSIKGG SEQ ID NO:115, DHFSQAGSSNHH SEQ ID NO:116, DDPVTPVIDFGK SEQ ID NO:117, and RDGLIDFVVAGT SEQ ID NO:118.

53(New). The peptide or polypeptide according to claim 52, which is modified to enhance stability or enhance adhesion molecule binding.

54(New). The peptide or polypeptide according to claim 52, which is a multivalent peptide or polypeptide.

55(New). A composition comprising one or more peptides of claim 3 and a pharmaceutically acceptable carrier thereof.

56(New). A peptide or polypeptide that mimics a carbohydrate ligand of an adhesion molecule in a physiologically acceptable carrier, wherein said ligand is the Lewis antigen SA-Le^a and said peptide or polypeptide is selected from the group consisting of DLWDFVVGKPAG SEQ ID NO:63, DLWDWVVGKPDG SEQ ID NO:73, DLWDWVIGKPAG SEQ ID NO:64, DLWDWVVGKPAD SEQ ID NO:74, DLWDWVVAKPAG SEQ ID NO:65, DLWDWVKEKPAG SEQ ID NO:75, DLWDWVVSKPAG SEQ ID NO:66, DLWDWVLAKPAG SEQ ID NO:76, DLWDWVVEKPAG SEQ ID NO:67, DLWDWVVGEDAG SEQ ID NO:77, DLWDWVVDKPAG SEQ ID NO:68, DLWDWVVGKPEK SEQ ID NO:78, DLWDWVVGEPAG SEQ ID NO:69, DLWDWVKEEPAG SEQ ID NO:79, DLWDWVVGDPAG SEQ ID NO:70, DLWDWVVGKDEK SEQ ID NO:80, DLWDWVVGKEAG SEQ ID NO:71, DLWDWVVGEDEK SEQ ID NO:81, DLWDWVVGKDAG SEQ ID NO:72, and DLWDWVKEEDEK SEQ ID NO:82.

57(New). The peptide or polypeptide according to claim 56, which is modified to enhance stability or enhance adhesion molecule binding.

58(New). The peptide or polypeptide according to claim 56, which is a multivalent peptide or polypeptide.

59(New). An isolated peptide or polypeptide consisting of naturally occurring amino acids, said peptide or polypeptide mimicking a carbohydrate ligand of an adhesion molecule in a physiologically acceptable carrier, wherein said ligand is a Lewis SA-Le^a or SA-LeX antigen.

60(New). The peptide or polypeptide according to claim 59, which is a multivalent peptide or polypeptide.

61(New). A modified peptide or polypeptide mimicking a carbohydrate ligand of an adhesion molecule in a physiologically acceptable carrier, wherein said ligand is a Lewis antigen and wherein said modification is selected from the group consisting of (i) use of one or more D amino acids, (ii) insertion of a moiety which can provide a net positive charge at the N-terminus of said peptide or polypeptide, (iii) insertion of a spacer of greater than 3 amino acids interposed between the N- and C-termini to cyclize the peptide, (iv) insertion of a free hydroxyl on the C-terminus, (v) insertion of an amide or imide on the C-terminus, and (vi) insertion of a sequence of one or up to about 15 additional amino acids on the C-terminus.

62(New). The peptide or polypeptide according to claim 61 which is modified by cyclizing the N- and C-termini.

63(New). The peptide or polypeptide according to claim 61, wherein said modification enhances stability or enhance adhesion molecule binding.

64(New). The peptide or polypeptide according to claim 61, which is a multivalent peptide or polypeptide.